ATLANTIC PROVINCES AGRICULTURE

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CANADA DEPARTMENT OF AGRICULTURE
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OTTAWA, AUGUST 1957

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ATLANTIC PROVINCES AGRICULTURE

Abstract

1. In 1952 the net value of commodity production[1/] in the Atlantic Provinces accounted for six per cent (774 million dollars) of the Canadian total of which about 13 per cent was from agriculture (110 million dollars).

2. Within the past ten years, the physical volume of agricultural production, on the average, has increased about 15 per cent in Prince Edward Island but has decreased in Nova Scotia and New Brunswick. This decrease in production has been offset considerably by a 14 per cent increase in the Atlantic Provinces population and a 37 per cent decrease in the agricultural labour force being absorbed by the non-agricultural segment of Maritime economy.

3. In 1950, there were ten thousand farms on Prince Edward Island, 23 thousand farms in Nova Scotia and 26 thousand farms in New Brunswick but Prince Edward Island with less than half the number of farms had almost as much arable land as Nova Scotia and about two-thirds that of New Brunswick (P.E.I. 649 thousand acres; N.S. 658 thousand and N.B. one million). Fifty-two per cent of farms in P.E.I. had produce in 1950 which sold for over $1200 while in Nova Scotia only 28 per cent of all farms were in this category and only 29 per cent in New Brunswick.

4. Types of farming - New Brunswick: Within New Brunswick there were 30 farming areas in 1950, of which 13 were livestock areas, ten combination livestock and cash crop areas and the remaining seven, cash crop areas. The 13 livestock areas consisted of eight dairy, one beef and four general livestock areas. Of the ten combination livestock and cash crop areas, five received more income from livestock than cash crops while in the remaining areas the reverse was true.

Only in the Maugerville area was over 50 per cent of the gross farm revenue from fruit and vegetables and only in Grand Falls did this large a portion of farm income come from potatoes.

Ninety-one per cent of the farms in the four forest product areas of New Brunswick sold less than $1200 of produce in 1950.

1/ Includes Agriculture, Forestry, Fisheries, Trapping, Mining, Electric Power, Manufacturing and Construction.
Source: Canada Year Book, 1955, Page 757.

5. Types of Farming - Nova Scotia: Nine of the 17 farming areas in Nova Scotia were livestock areas, six were combination livestock and cash crop areas while the remaining two areas, namely, Annapolis Valley - North Mountain and Scott Bay were respectively fruit and vegetable, and potato areas. Of the nine livestock areas, five were dairy and four general livestock. The six districts in Nova Scotia considered combination livestock. The six districts in Nova Scotia considered combination livestock and cash crop areas were: Parrsboro Shore, Annapolis Valley - South Mountain, Lunenburg, Guysborough, St. Peters and Sydney Mines. Approximately seventy five per cent of the farms in these areas sold over $1200 in produce per annum.

6. Types of farming - Prince Edward Island - Within Prince Edward Island there were no areas where over 50 per cent of the income came exclusively from cash crops. Five areas were considered livestock areas and five livestock - cash crop areas. In contrast to the few animals per farm on the mainland were the larger number per farm on the Island.

7. Types of farming - Newfoundland - Almost 90 per cent of the farms in Newfoundland produced less than $1200 in produce in 1950.

8. Soil surveys for a large portion of all farm land within the Atlantic Provinces are available and should be studied carefully before promoting any phase of agriculture. This general procedure of classifying land for agricultural use together with the crop variety guide for the Atlantic Provinces (as developed by the Experimental Farms Service, Canada Department of Agriculture) gives an excellent overall picture of the agricultural potential of the Atlantic Region. This approach is most useful when used along with the types of farming as they now exist.

9. The soils of the Atlantic Provinces are of Podzolic origin and respond well to good management but require considerable applications of plant nutrients. The climate is more moderate than in the interior of the country and places cool weather crops at an advantage while crops requiring hot weather are at a disadvantage. Oats, barley (mixed grains), hay, pasture, root crops, potatoes, apples and low bush blueberries do well. Land not now occupied by farms (except areas such as marshlands, alluvial soils in the St. John Valley and possibly a tract of land in northwestern New Brunswick) is not suited to agriculture and probably best left in forestry.

10. The Dairy industry has been the backbone of agriculture in the Maritimes. The production of a major portion of the beef has been a by-product of dairy. This has resulted in lower than average quality of beef. On dairy farms the aim should be towards a marked expansion of milk cows. For all livestock farming in general, it would seem desirable to institute more research designed to determine the best rotation and cropping methods for beef and for dairy production on each of the major soil types in the Atlantic Provinces. Hogs and poultry have been very useful as a major source of supplementary income and in expanding total output on a limited land base but should probably be expanded only to the point where Atlantic Provinces' needs are satisfied.

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11. Maritime agriculture produces insufficient crops and livestock products for the needs of the people of the region. The extent of this deficit for specific agricultural products and animal products are indicated by inter-provincial rail freight movement. For the Atlantic Provinces, in general during 1955, only potatoes, some animal products (such as hides, wool and by-products) apples and live cattle were a net export. All other agricultural and animal products were a net import. During 1955, a net of eighty five thousand tons of canned goods were also imported.

12. Of the major crops and products grown in the Maritimes, potatoes, apples and blueberries were considered "surplus". Wool, strawberries, eggs and ice cream were almost in equilibrium with total consumption. Milk and butter were deficit while poultry meat, cheese, honey, concentrated milk and red meats were markedly deficit.

13. Price Relationships - The prices of comparable grades of cattle on a live weight basis were, in general, lower at Maritime centres than at Montreal during the past year, except in the case of choice, good and medium heifers. Butter and egg prices are generally higher but cheese prices are lower in the Maritimes than at Montreal.

Prince Edward Island potatoes command a premium price in all markets where they are sold. New Brunswick potatoes also receive a higher price in Ontario and Quebec than local potatoes.

The average farm value per bushel of apples was lowest in Nova Scotia but higher in New Brunswick (1954 and 1955) than in other parts of Canada.

The Strawberry Price Relationship shows Nova Scotia with the highest prices for the Maritimes; in 1955 being four cents per quart higher than in Ontario.

Premium prices are paid the Maritime producer for products which predominantly come from Ontario or the United States.

14. Two of the three Maritime Provinces are deficit areas with respect to red meat production in relation to consumption. Prince Edward Island produces double its needs, New Brunswick is 47 per cent self-sufficient and Nova Scotia only 37 per cent. The counties around the eastern Bay of Fundy and Prince Edward Island accounted for almost 60 per cent of local livestock supply.

15. Livestock processed at Moncton pays rail freight rates varying from 22 cents per 100 pounds for 80 miles to 61 cents for the 430 miles from Yarmouth. Shipments from Nova Scotia points to a plant at Halifax would save over Moncton about 25 cents per 100 pounds on the Dominion Atlantic Railway and three to seven cents in central and eastern Nova Scotia.

16. Although canning in the Maritimes started for blueberries, apples soon became the main raw product and remain so today. A very high proportion of the output of the processing industry is in the Annapolis Valley of Nova Scotia. In vegetables, the dominance of Nova Scotia extends to canned beans, green, wax, and baked, and to canned peas. The freezing of berries and a few vegetables is also growing in the three provinces. The potential for further developing processing in the Maritimes may well rest heavily in the Annapolis Valley where the climate favours various horticultural crops besides apples.

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11. Maritime agriculture produces foodstuffs, crops and livestock products for the needs of the people of the region. The extent of this deficit for specific agricultural products and animal products are indicated by inter-provincial trade movement. For the Province of Prince Edward Island during 1953, only potatoes, some animal products (milk or milk, meat and by-products) apples and live cattle were a net export. All other agricultural and animal products were a net import. During 1953, a net of eighty five thousand tons of canned goods were also imported.

12. Of the major crops and products grown in the Maritimes, potatoes, apples and blueberries were considered "surplus". Meat, strawberries, eggs and ice cream were almost in equilibrium with local consumption. Milk and butter were deficit within industry need, cheese, broiler, concentrated milk and feed meats were markedly deficit.

13. Price Relationships - The pattern of comparative prices of cattle on a live weight basis was normal, lower at marketing centres than at national during the year, except in the case of canner, good and medium heifers. Butter and egg prices were generally higher but cheese prices are lower in the Maritimes than at Montreal.

Prince Edward Island potatoes occupied a premium price in all markets where they are sold. The Prince Edward potatoes also received a higher price in Ontario and Quebec than local potatoes.

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The Strawberry Price Relationship among Nova Scotia with the highest price, Quebec the lowest in 1953 being four cents per quart higher than in Ontario.

Premium prices are paid the Maritime producer for potatoes which produce consumptive corn from Ontario or the United States.

14. Two of the large Maritime Provinces are highly areas with respect to red meat production in relation to consumption. Prince Edward Island produces double its needs, New Brunswick is 47 per cent self-sufficient and Nova Scotia only 37 per cent. The position among the eastern Bay of Fundy and Prince Edward Island necessitated for almost 40 per cent of local consumption supply.

15. Livestock processed at Moncton part year, single trains range varying from 47 cars per 100 cattle for 90 miles to 60 cars for the 630 miles from Yarmouth. Shipments from New Brunswick point to a plant at Halifax would save over Moncton about 45 cars per 100 producers the Southern Atlantic Railway and time to move cattle in receipt and eastern Nova Scotia.

16. Although cooling in the Maritime started for Lunenburg, apples are because the main can produce and meat is so today. A very high proportion of the output of the producing Annapolis is in the Annapolis Valley of Nova Scotia. In vegetables, the Bonnieux of Nova Scotia growing tomatoes canned beans, green, and baked, and to canner beans. The growing of berries and a few vegetables is also growing in the Nova Province. The potential for further developing processing in the Maritimes may well rest mostly in the Annapolis Valley where the climate favours various horticultural crops including apples.

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PRODUCTION ASPECTS OF ATLANTIC PROVINCES AGRICULTURE

Introduction

The influence of environment, production resources and economic conditions determines the kind of agriculture followed in an area. The efforts of farmers to adjust their operations to both physical and economic conditions determine the changes in the type of farming from one part of the country to another. The purpose of Part I of this study is to describe the various types of farming in the Atlantic Provinces and to describe the production possibilities and problems of Atlantic Provinces agriculture.

In 1952, the net value of commodity production in the Atlantic Provinces accounted for six per cent of the Canadian total and was valued at approximately 774 million dollars. Agriculture represented 13 per cent of this composite and consisted mainly of livestock, dairy products, potatoes and poultry. Within Prince Edward Island the economy is mainly agriculture. In New Brunswick, agriculture is the largest primary industry while in Nova Scotia it is second only to mining.

Within the past ten years, the physical volume of agricultural production has increased about 15 per cent in Prince Edward Island and has decreased slightly in Nova Scotia and New Brunswick. In contrast, during this period, the agricultural labor force decreased about 37 per cent. Labor from agriculture as well as a 14 per cent increase in Atlantic Province population have been absorbed by the non-agricultural segment of the economy. The labor force trend away from agriculture is likely to continue for some years and is desirable as long as the volume of agricultural production does not suffer seriously. To ensure high levels of production and to improve the standard of living of people still farming, it is important to know what kinds of farming are carried on in an area and the size of enterprise within that area. With this in mind the following analysis is presented.

Types of Farming in the Atlantic Provinces 1/

In classifying farms according to type of production, minor census divisions were grouped according to the percentage of total farm income in 1950 which was obtained from a particular source. Dominance of a particular type of farming was determined on the basis of gross farm revenue received as follows:

(1) Livestock farms - 70 per cent or more of the gross farm revenue was received from the sales of livestock and livestock products.

(a) Dairy - farms where the sales of dairy products were over 40 per cent of total livestock and livestock products sales.

(b) Cattle - farms where the sales of cattle were over 40 per cent of total livestock and livestock products sales.

1/ Compiled from Census Data, 1951, by the Economics Division, Department of Agriculture in co-operation with the Dominion Bureau of Statistics and recently revised.

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(c) General Livestock - farms where neither the dairy products nor the cattle sales were over 40 per cent of total livestock and livestock products sales.

(2) Combination Cash Crop and Livestock Farms - 70 per cent or more of the gross revenue was received from the combined sales of crops and livestock.

(a) Livestock-cash crops - farms where gross revenue from livestock exceeds that from cash crops.

(b) Cash crops - livestock - farms where gross revenue from cash crops exceeds that from livestock.

(3) Cash Crop farms - 50 per cent or more of gross farm revenue was received from the special crops listed.

(a) Potatoes - farms where 50 per cent or more of the gross farm revenue was from potato or other root crop sales.

(b) Fruits and vegetables - farms where 50 per cent or more of the gross farm revenue was from the sales of fruits and vegetables.

(c) Forest products - farms where 50 per cent or more of the gross farm revenue was from the sales of forest products.

NEW BRUNSWICK

In 1950 there were 26,431 farms in New Brunswick, farming 3.6 million acres of land. Of the total farm land, only 687 thousand acres were improved for farm use, while the remainder were classified as unimproved (in woodland, natural hay and pasture, marsh or waste). Approximately half the New Brunswick farmers received the largest portion of their income from a combination of livestock and cash crops while an additional third received most of their income from livestock. Two thirds of the livestock specialty farms were classified as dairy. Data on the types of farming in New Brunswick are given in Table 1, while the location of these areas is shown on the type of farming map for New Brunswick (figure 1).

(a) Livestock areas - Within New Brunswick, there are 13 livestock specialty areas. Eight of these areas specialize in dairying, one in beef cattle and four in general livestock.

In 1950, 903 thousand acreas of farm land were divided among 5,981 farms in dairy specialty areas. On the average, there were 152 acres per farm, of which 42 could be cultivated.

Only the Dorchester-Sackville area in New Brunswick was classified as a cattle specialty area. Within this area, there were 744 farms with a total of eight thousand acres. Farms averaged 110 acres, 30 of which were tillable.

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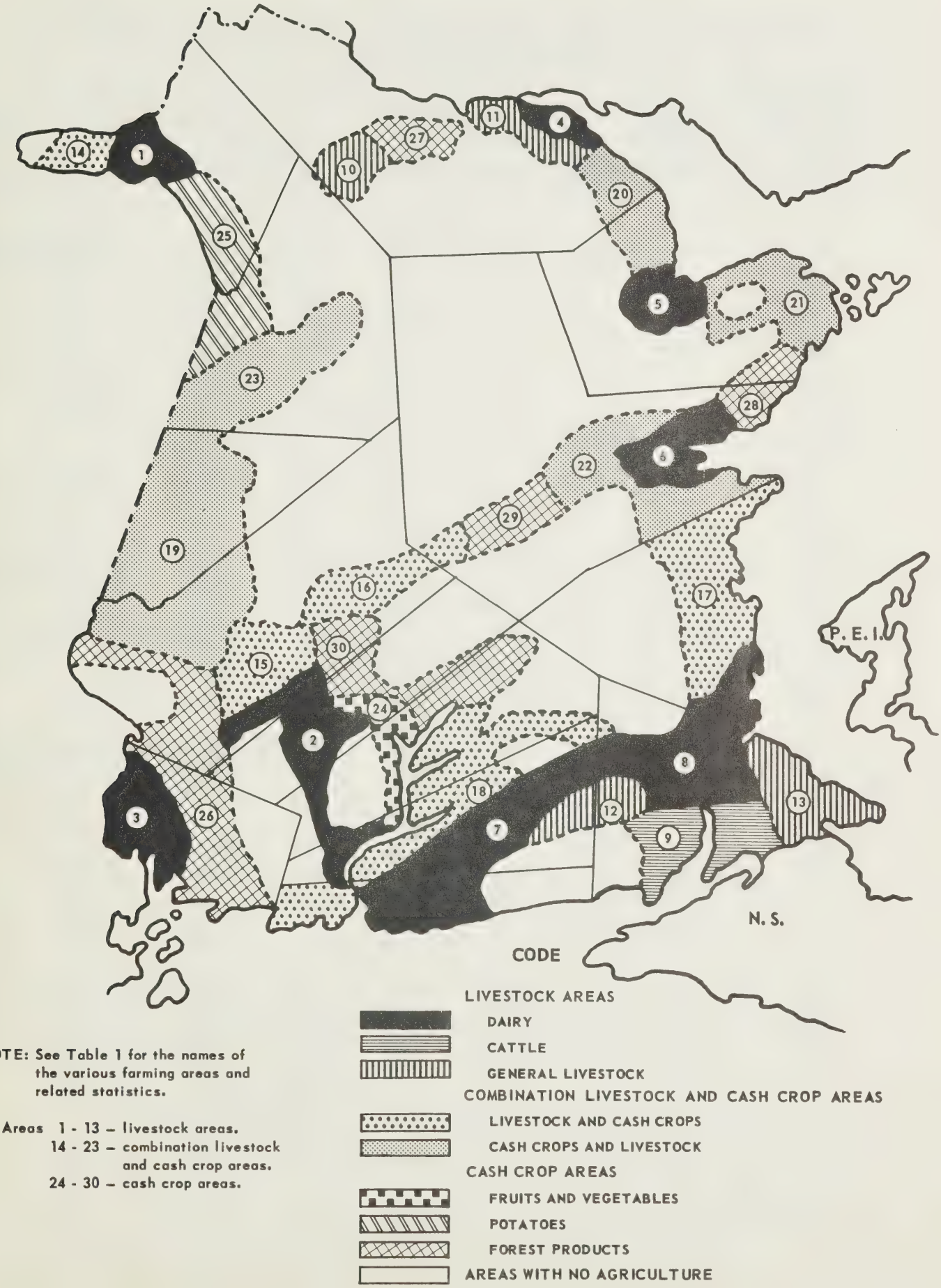
Figure 1 – TYPES OF FARMING AREAS IN NEW BRUNSWICK



NOTE: See Table 1 for the names of the various farming areas and related statistics.

Areas 1 - 13 – livestock areas.
14 - 23 – combination livestock and cash crop areas.
24 - 30 – cash crop areas.

Table 1 - A Description of Farming in the Various Types of Farming Areas Within New Brunswick

Areas - by major source of income 1951	No. of Farms	PER FARM Total	Improved	In field crops 1/	All cattle	Fruit & Vegetable Sales	Proportion of Farms selling over $1200 produce
					-number-	-$-	- per cent -
Livestock areas							
Dairy - area 1	78	172	72	48	8	26	45
area 2	600	188	38	28	9	93	46
area 3	375	134	23	17	5	48	31
area 4	178	104	32	20	6	11	21
area 5	449	122	30	21	6	22	20
area 6	664	97	18	14	3	9	10
area 7	3,637	164	51	32	12	30	46
area 8	no data available						
TOTAL	5,981	152	42	27	9	34	37
Cattle- area 9	744	110	30	22	9	9	29
General-area 10	374	126	52	37	8	5	26
area 11	316	83	28	16	3	16	8
area 12	253	196	56	31	11	16	43
area 13	1,451	99	38	25	6	45	23
TOTAL	2,394	112	41	27	6	32	24
Combination Livestock and Crop Areas							
Livestock - Crop specialty							
area 14	1,149	144	51	36	5	4	32
area 15	1,031	195	46	33	8	77	49
area 16	298	112	29	22	6	7	10
area 17	1,948	121	40	26	6	11	25
area 18	825	188	30	23	7	211	35
TOTAL	5,251	151	41	29	6	54	31
Crop - livestock areas							
area 19	2,422	177	74	51	8	24	57
area 20	1,130	87	23	15	3	5	10
area 21	2,230	58	15	10	2	-	4
area 22	1,071	93	19	12	3	5	10
area 23	no data available						
TOTAL	7,746	120	37	25	4	38	25

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Table 1 (continued)

Areas - by major source of income 1951	No. of Farms	PER FARM Total	Improved	In field crops 1/	All cattle	Fruit & Vegetable Sales	Proportion of Farms selling over $1200 produce
		------- acres --------			-number-	-$-	- per cent -
Cash Crop Areas							
Fruit and Vegetables							
area 24	no data available for Maugerville						
Potatoes							
area 25	1,353	140	59	36	6	5	55
Forest Products Areas							
area 26	380	176	21	16	4	11	25
area 27	225	98	14	8	2	-	2
area 28	1,662	79	16	10	2	1	4
area 29	518	99	16	11	2	2	12
area 30	175	145	31	15	4	n.a.	20
TOTAL	2,960	100	17	11	2	2	9
NEW BRUNSWICK	26,431	131	38	26	6	33	29

1/ includes potatoes.
n.a. - not available.

Name of Area		Name of Area	
Area 1	- Edmundston	Area 16	- Boiestown
Area 2	- Fredericton	Area 17	- Richibucto
Area 3	- St. Stephen	Area 18	- Lower St. John Valley
Area 4	- Campbellton	Area 19	- Woodstock
Area 5	- Bathurst	Area 20	- Jacquet River
Area 6	- Chatham-Newcastle	Area 21	- Caraquet-Tracadie
Area 7	- Saint John-Sussex-Moncton	Area 22	- Miramichi
Area 8	- Buctouche	Area 23	-Plaster Rock
Area 9	- Dorchester-Sackville	Area 24	- Maugerville
Area 10	- St. Quentin	Area 25	- Grand Falls
Area 11	- Balmoral	Area 26	- Dunbarton - St. George
Area 12	- Hillsborough	Area 27	- White Brook
Area 13	- Shediac- Port Elgin	Area 28	- Tabusintac - Allardville
Area 14	- Baker Brook - St. Francis	Area 29	- Doaktown - Blackville
Area 15	- Keswick - Millville	Area 30	- McGivney - Minto

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Seventy one per cent of the farms received less than $1200 per annum from the sales of farm produce.

Four areas, including St. Quentin, Balmoral, Hillsborough and Shediac-Port Elgin were considered as general livestock areas. The largest general livestock area was around Shediac.

(b) Combination Livestock and Cash Crop Areas - Ten areas in New Brunswick received the major portion of their income from a combination of livestock and cash crops. Within five of these areas more income was received from livestock than cash crops while in the remaining five areas the reverse was true.

There are almost 13 thousand farms in New Brunswick where the major income is derived from a combination of livestock and cash crops; potatoes of course being the major cash crop. These farms include 1.7 million acres of which there were 502 thousand acres of tillable land.

Five areas in New Brunswick, namely Baker Brook - St. Francis, Keswick - Millville, Boiestown, Richibucto and the Lower St. John Valley, receive more income from livestock than cash crops. Good farms are to be found in the Keswick-Millville area where farms averaged 195 acres, (46 of which were tillable) eight cattle, five swine, three sheep and 132 hens.

The remaining five areas in this classification received more income from cash crops than livestock. These areas are (1) Woodstock (2) Jacquet river (3) Caraquete - Tracadie (4) Miramichi and (5) Plaster rock. Of these areas, the Woodstock area is the largest. Fifty seven per cent of the farmers in this area in 1950 received over $1200 per farm from the sale of farm products. On the average, there were 177 acres per farm of which 77 were tillable and 51 in field crops. Eight cattle, five swine, two sheep and 59 hens were kept.

(c) Cash Crop Areas - In total, there are seven cash crop areas in New Brunswick. These include one fruit and vegetable area, one potato area and five forest products areas.

Maugerville in 1950 was a fruit and vegetable area while Grand Falls was the potato area. No data are available for the Maugerville area but within the Grand Falls area there were 1,353 farms, farming a total of 189 thousand acres. Fifty five per cent of the farmers sold produce valued at over $1200 per farm.

The five forest products areas in New Brunswick are (1) Dunbarton - St. George (2) White Brook (3) Tabusintac - Allardville (4) Doaktown - Blackville and (5) McGivney - Minto. On the average, three months were spent away from the farms within forest products areas. It is very likely that much farm labor shifted to the logging industry during these months.

NOVA SCOTIA

Within Nova Scotia there were 23,515 farms in 1950, including 3.2 million acres of land, of which, 658 thousand acres were classified as tillable. The remaining acreage was used mainly for woodland, natural hay and pasture, marsh or

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Figure 2 – TYPES OF FARMING AREAS IN NOVA SCOTIA

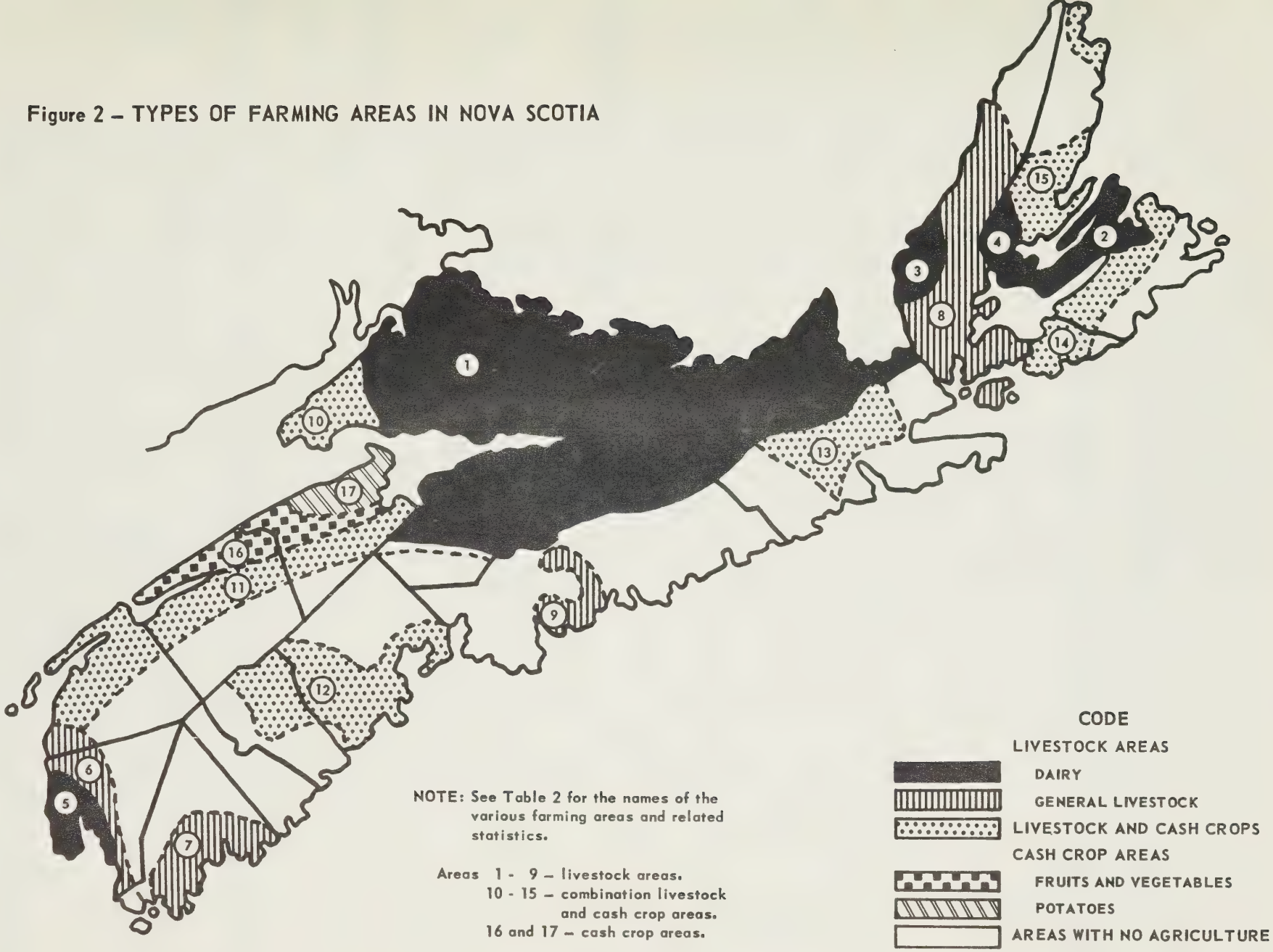

Table 2 - A Description of Farming in the Various Types of Farming Areas Within Nova Scotia

Areas - by major source of income 1951		No. of Farms	PER FARM Total	Improved	In field 1/ crops	All cattle	Fruit & Vegetable Sales	Proportion of farms selling over $1200 produce
			-----	acres	------	-number-	-$-	- per cent -
Livestock areas								
Dairy -	area 1	8,073	158	40	27	9	42	36
	area 2	907	109	20	12	5	72	30
	area 3	663	134	24	19	8	-	31
	area 4	no data available						
	area 5	no data available						
	TOTAL	9,643	152	37	25	9	42	34
General -	area 6	1,841	84	13	8	5	35	14
	area 7	127	142	9	5	6	24	34
	area 8	1,510	116	18	14	5	5	7
	area 9	1,194	135	22	15	7	81	28
	TOTAL	4,672	109	16	12	5	37	16
Combination Livestock and Cash Crop Areas								
Livestock - crop specialty								
	area 10	318	126	31	19	7	13	23
	area 11	3,376	139	28	21	6	207	29
	area 12	2,103	117	15	12	6	31	22
	area 13	746	150	15	10	4	9	12
	area 14	718	118	10	7	3	10	10
	area 15	784	148	19	14	4	8	16
	TOTAL	8,045	133	21	16	5	98	23
Cash Crop Areas								
Fruit and Vegetables								
	area 16	1,139	120	54	41	11	685	55
Potatoes								
	area 17	no data available						
NOVA SCOTIA		23,515	135	28	20	7	92	28

1/ potatoes included.

Name of Area	Name of Area
Area 1 - Truro-Amherst-Antigonish	Area 9 - Dartmouth
Area 2 - Sydney	Area 10 - Parrsboro Shore
Area 3 - Mabou	Area 11 - Annapolis Valley-South Mountain
Area 4 - Baddeck	Area 12 - Lunenburg
Area 5 - Yarmouth	Area 13 - Guysborough
Area 6 - Port Maitland-Pubnico	Area 14 - St. Peters
Area 7 - Shelburne	Area 15 - Sydney Mines - Dingwall
Area 8 - Margaree Forks - Port Hastings	Area 16 - Annapolis Valley-North Mountain
	Area 17 - Scott Bay

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waste. Sixty per cent of the farmers in Nova Scotia received the largest portion of their income from livestock while an additional 35 per cent of the farmers received most of their income from a combination of livestock and cash crops. Only within the Annapolis Valley - South Mountain area and the Scott Bay area did farmers receive most of their income from cash crops. As in New Brunswick, almost two thirds of the livestock farms were dairy farms. Detail on the type of farming is given in Table 2 while the location of these areas is shown in the type of farming map for Nova Scotia.

(a) Livestock Areas - Nine of the 17 farming areas in Nova Scotia are livestock areas. Five of these areas specialize in dairy and four have general livestock farms.

Within the dairy specialty areas there were 9,643 farms and 1.5 million acres of farm land. Approximately 357 thousand acres of this land were considered tillable while 241 thousand acres were in field crops. The following areas were considered dairy specialty areas in Nova Scotia (1) Truro-Amherst-Antigonish, (2) Sydney (3) Mabou and (4) Baddeck. On the average, farms were 152 acres in size, of which 37 acres were tillable. The following animals were kept on the average per farm: nine cattle (four milk cows), two hogs, four sheep and 66 hens. The Truro-Amherst-Antigonish area was by far the largest dairy area and also one of the most prosperous in Nova Scotia.

Four areas, which include Port Maitland-Pubnico, Shelburne, Margaree Forks-Port Hastings and Dartmouth were considered as general livestock areas. There were 4,672 general livestock farms in Nova Scotia. These farms averaged 109 acres in size of which only 16 acres were tillable.

(b) Combination Livestock and Cash Crop Areas - Six areas - the Parrsboro Shore, Annapolis Valley - South Mountain, Lunenburg, Guysborough, St. Peters and Sydney mines received the majority of income from a combination of livestock and crop sales. In all areas more income was received from livestock than from crops.

Within Nova Scotia, there were 8,045 farms where income was derived from a combination of livestock and cash crop sales. In total almost 1.1 million acreas were farmed, of which 169 thousand acres were tillable. On the average, 6 cattle, 3 hogs, 2 sheep and 47 hens were kept per farm. Approximately three months were spent at work other than farming.

Although the Bay of Fundy area was considered a livestock-crop specialty area, the fruit and vegetable industry seems fairly well developed.

(c) Cash crop areas - Within Nova Scotia there are two areas where 50 per cent or more of gross farm revenue was received from special crops. These are Annapolis Valley-North Mountain and Scott Bay. The Annapolis Valley is, of course, a fruit and vegetable area while the Scott Bay is a potato area. These cash crop areas could be more fully developed with respect to small fruits and vegetables than they are at present.

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Figure 3 – TYPES OF FARMING AREAS IN PRINCE EDWARD ISLAND

NOTE: See Table 3 for the names of the various farming areas and related statistics

Areas 1 - 5 – livestock areas.
6 - 10 – combination livestock and cash crop areas.

CODE

LIVESTOCK AREAS
- DAIRY
- CATTLE
- GENERAL LIVESTOCK

COMBINATION LIVESTOCK AND CASH CROP AREAS
- LIVESTOCK AND CASH CROPS
- CASH CROPS AND LIVESTOCK

AREAS WITH NO AGRICULTURE

Table 3 - A Description of Farming in the Various Types of Farming Areas within Prince Edward Island

Areas - by major source of income 1951	No. of Farms	PER FARM Total	Improved Land	In field Crops 1/	All Cattle	Fruit & Vegetable Sales	Proportion of farms selling over $1200 of produce
		acres			number	$	per cent
Livestock Specialty Areas							
Dairy - area 1	94	58	47	33	12	309	56
area 2	no data available						
Cattle- area 3	356	108	72	42	12	20	67
area 4	196	92	65	40	12	5	65
TOTAL	552	102	69	42	12	14	66
General - area 5	6,945	107	63	39	10	12	51
Combination Livestock and Cash Crop Areas							
Livestock-cash crop - area 6	190	117	44	28	6	5	35
area 7	334	137	64	40	8	129	47
area 8	832	109	79	46	14	14	74
area 9	846	109	65	42	7	5	37
TOTAL	2,202	114	68	42	10	27	52
Cash Crop - livestock area 10	341	114	49	29	6	6	41
PRINCE EDWARD ISLAND	10,137	108	64	39	10	18	52

1/ potatoes included

Name of Area

Area 1 - Charlottetown
Area 2 - Summerside
Area 3 - Vernon River - Woods Island
Area 4 - Bonshaw - Crapaud
Area 5 - All Main Parts
Area 6 - St. Peters - Rollo Bay
Area 7 - Mount Stewart
Area 8 - Port Borden
Area 9 - Alberton
Area 10 - Souris

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PRINCE EDWARD ISLAND - In 1950 there were 10,137 farms on Prince Edward Island having a total of slightly over one million acres in farm land, of which 649 thousand acres were considered tillable. This then is almost as much tillable farm land as in Nova Scotia and about two thirds that of New Brunswick divided among less than half the number of farms. It is not surprising that a comparison of incomes shows 52 per cent of the farms on the Island with produce which sold for $1200 or more, while comparative percentages for New Brunswick and Nova Scotia were 25 and 28 per cent respectively.

On Prince Edward Island, 7,591 farms were considered as livestock specialty farms, whereas the remainder received a major portion of their income from a combination of livestock and cash crops. Potatoes, of course, were the main cash crop. Although Prince Edward Island is noted for potatoes no area on the Island produced mainly potatoes (to an extent where over 50 per cent of the gross farm revenue is from this crop). Detail pertaining to the type of farming in Prince Edward Island is given in Table 3; types of farming in Prince Edward Island are also shown in map form.

(a) Livestock Specialty Areas - As stated, 7,591 farms were considered as livestock specialty farms. This analysis excluded the important Summerside area where no data were available from the 1951 census. Two areas, namely Charlottetown and Summerside were considered dairy specialty areas. While Charlottetown was considered a dairy specialty area, it must be noted that the largest sales of small fruits and vegetables per farm for P.E.I. were from this area. Two areas, Vernon River-Woods Island and the Bonshaw-Crapaud area were considered general livestock areas, while the remaining area, designated as area 5 and absorbing over 763 thousand acres of farm land, was considered as a general livestock area. On P.E.I. livestock specialty farms had an average of 10 cattle per farm.

(b) Combination Livestock and Cash Crop Areas - Five areas in Prince Edward Island, namely St. Peters-Rollo Bay, Mount Stewart, Port Borden, Alberton and Souris were considered livestock-cash crop areas. All areas except Souris received more income from livestock than cash crops. The reverse is true in the Souris area. Statistics for the above areas are shown in Table 3.

NEWFOUNDLAND - In Newfoundland as in all other Atlantic Provinces, farming must be considered as only part of the income sources of those who farm land. Within Newfoundland, for example, there is very little farm land. Farms are small and income from the farming enterprise very low. Sales of small fruits and vegetables per farm were largest in the four areas, namely Cormack, St. John's, Musgrovetown and Robinsons.

Seven areas in Newfoundland were considered livestock specialty areas. Within these, there were 1,434 farms, farming 22 thousand acres, of which about half were tillable. Five areas combined livestock with cash crop farming while two areas, namely Lewisporte and Musgrovetown were considered cash crop areas. Detail on the type of farming is given in Table 4, while the location of these areas is shown in the type of farming map for Newfoundland.

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Figure 4 – TYPES OF FARMING AREAS IN NEWFOUNDLAND

NOTE: See Table 4 for the names of the various areas and related statistics.

Areas 1 - 7 – livestock areas.
8 - 12 – combination livestock and cash crop areas.
13 and 14 – cash crop areas.

CODE

LIVESTOCK AREAS
- DAIRY
- CATTLE
- GENERAL LIVESTOCK

COMBINATION LIVESTOCK AND CASH CROP AREAS
- LIVESTOCK AND CASH CROPS
- CASH CROPS AND LIVESTOCK

CASH CROP AREAS
- POTATOES
- FOREST PRODUCTS

AREAS WITH NO AGRICULTURE

Table 4 - A Description of Farming in the Various Types of Farming Areas Within Newfoundland

Areas - by major source of income 1951		No. of Farms	PER FARM Total	Improved Land	In Field Crops 1/	All Cattle	Fruit & Vegetable Sales	Proportion of farms selling over $1200 of produce
			acres			-number-	-$-	- per cent -
Livestock areas								
Dairy -	area 1	25	20	9	5	3	40	12
	area 2	707	22	10	5	4	92	20
	TOTAL	732	22	10	5	4	90	19
Cattle -	area 3	44	7	4	3	1	-	-
	area 4	31	4	2	2	3	-	3
	area 5	386	8	5	3	2	21	13
	area 6	118	12	6	5	4	59	10
	TOTAL	579	9	5	4	2	26	10
General-	area 7	123	9	6	4	1	33	5
Combination Livestock and Cash Crop Areas								
Livestock - cash crop								
	area 8	192	103	20	13	5	57	14
	area 9	809	11	4	3	1	22	3
	area 10	86	58	18	9	4	163	35
	TOTAL	1,087	31	8	5	2	40	8
Cash Crop - Livestock								
	area 11	703	33	10	8	2	92	8
	area 12	145	11	8	4	1	62	12
	TOTAL	848	29	9	7	2	87	8
Cash Crop Areas								
Fruit and Vegetables								
	area 13	156	12	5	3	1	51	14
Potatoes								
	area 14	69	18	7	4	1	101	17
NEWFOUNDLAND		3,626	23	8	5	2	60	11

1/ potatoes included

	Name of Area		Name of Area
Area 1 -	Grand Falls	Area 8 -	Codroy Valley
Area 2 -	St. John's	Area 9 -	Bay de Veste
Area 3 -	Bonne Bay	Area 10 -	Cormack
Area 4 -	Bonavista	Area 11 -	Robinsons
Area 5 -	Kelligrews-Ferryland	Area 12 -	Harbour Grace
Area 6 -	Fortune Bay	Area 13 -	Lewisporte
Area 7 -	Corner Brook	Area 14 -	Musgrovetown

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Land Use in the Atlantic Provinces

In studying production possibilities, it is very important that soil reports be reviewed carefully. For the Atlantic Provinces, much of the agricultural land has been soil-surveyed and detailed analysis of the soil composition and use has been given. The purpose of this section of the report is to acquaint the reader with the land classification material that is available for the vast area of farm land which has now been surveyed.

Soil surveys in the Atlantic Provinces can be classed as detailed- reconnaisance and reconnaissance type of surveys. Detailed reconnaissance surveys were conducted in the more densely settled areas and soil boundaries were drawn in accordance with the lay of the land between points of inspection which were usually at 400 to 800 yard intervals. Reconnaissance type surveys were carried out in sparsely settled and heavily wooded districts where roads were scarce. Traverses were made along roads and trails at one to two mile intervals. The main purpose of the reconnaissance type surveys was to see if there were any large soil areas suitable for colonization purposes not now being used.

It must be emphasized that soil surveys of the reconnaissance type are on a scale too large to show much detailed variations in soil types as may occur on individual farms but are of great importance in planning an overall program.

In most published soil surveys of the Atlantic Provinces, a description of each soil is given together with a discussion of its uses for agricultural purposes. Such discussions are necessarily general since it is difficult to obtain basic information on specific types of soils relating to crop yields and fertilizer practices. Nevertheless, this type of analysis can provide much basic information for planning future agricultural development.

Space does not permit a detailed analysis of the various soil types. In many ways, this would be repetition of material now available in the various excellent soil reports. For this reason soil survey studies pertaining to the Atlantic Provinces are listed below for further reference.

New Brunswick

Soil Survey of Southwestern New Brunswick - Canada Dept. of Agriculture.
Soil Survey of Southeastern New Brunswick - Canada Dept. of Agriculture.
Soil Survey of the Woodstock area - Canada Dept. of Agriculture
Soil Survey of the Fredericton - Gagetown area - Canada Dept. of Agriculture.

Nova Scotia

Soil Survey of Colchester County - Canada Department of Agriculture.
Soil Survey of Cumberland County - Canada Department of Agriculture.
Soil Survey of Hants County - Canada Department of Agriculture.
Soil Survey of Pictou County - Canada Department of Agriculture.

Prince Edward Island

Soil Survey of Prince Edward Island - Canada Dept. of Agric.

If more information is required than can be had from these reports, consideration should be given to the use of air photo interpretation for soil and crop

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identification. Through the use of a stereoscope, a trained interpreter can accurately show main crops and soils. This approach is essential for those engaged in land-use planning. A report, entitled "Elementary Agricultural Air Photo Interpretation" [27] by D.J. Packman and L.E. Philpotts has been released by the Canada Department of Agriculture. Recent air photos covering most of the agricultural areas of the Atlantic Provinces may be obtained for a small fee from the National Air Photographic Library, Department of Mines and Technical Surveys, Ottawa.

Production Possibilities and Problems of Atlantic Province Agriculture -

The soils in the Atlantic Provinces are of Podzolic origin. Generally, they are low in natural fertility and fairly acid when not limed. They respond well to good management but require considerable applications of plant nutrients. Special precautions to prevent soil erosion are essential as the topography is generally undulating.

The climate in the Atlantic Provinces is more moderate than in the interior of the country. Although the season is fairly long, the spring is late and cooler summer temperatures place some crops which require hot weather at a disadvantage but "cool weather crops" have a decided advantage. The climate is fairly uniform throughout except that late spring and early fall frosts are more frequent with increasing distances from salt water. This is especially true progressing up the St. John Valley in New Brunswick.

The soils and climate over most of the area are well adapted to the production of oats, barley (and mixed grains), hay and pasture. Although the yields of hay do not appear to be higher than for most of Ontario, a higher proportion of the land is relatively better suited to hay production than for grains or other crops as compared with Ontario. The yield of field roots compared with Ontario is considerably higher and provides the main source of succulent feeds. It is unfortunate that technological methods of producing this crop have not advanced more rapidly in recent years.

There are special soil areas such as the marshlands, the alluvial soils in the St. John Valley and possibly a large tract of agricultural land in Northwestern New Brunswick that can still be developed. Apart from this, most of the area not occupied by farms is not suited to agriculture and is presently in its highest use in forestry. It should be noted also that unless cleared land in pasture is maintained at a reasonable level of fertility desirable species of grasses tend to go out, since the climate is such that native coniferous trees take over such areas quite rapidly. In areas where the major part of the farm must be maintained in pasture or hay, it becomes difficult to obtain sufficient acreage for an efficient size unit. It is very frequently not recognized that many abandoned farms are submarginal because of small size rather than because of deficient soils. Many such farms when added to a nearby unit can be raised well above the marginal level.

Crop and Livestock Possibilities - The chief problem in the Atlantic Provinces is the appropriate utilization of land which is not especially adapted to special types of production such as apples, potatoes, blueberries, etc. What crops can be grown and where? In order to provide some information on this topic a "Crop Variety Guide for the Atlantic Provinces" was published by the Experimental Farms Service of the Canada Department of Agriculture in 1955. A crop variety zonation map

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included, showing six agricultural zones in the Atlantic Provinces. This map is shown in figure 5. The kind of produce that can be grown and the varieties recommended for each zone are shown in Tables 5 to 8. Table 5 deals with small fruits; table 6 with vegetables; table 7 with cereal and forage crops and table 8 with tree fruits. As shown, there is a wide variety of fruits, vegetables, cereals and forage crops that can be grown in the Atlantic Provinces.

The Dairy industry has been the backbone of agriculture in the Maritimes but dairying, except for fluid milk producers, has not generated the inducement or ability to increase the size of unit. In Prince Edward Island and in certain areas of New Brunswick and Nova Scotia, potatoes and apples have been tied in closely with dairying. The production of a major part of the beef has been as a by-product of dairy or in many cases a combination with dairy production. As a result, a large quantity of beef produced in this manner is of lower than average quality. What is required in dairy is a marked expansion in the size of enterprise on those farms retaining milk cows.

The unexploited local market for beef is very large, but, the expansion of agricultural production in this direction would be more difficult than in dairy. The number of acres of improved land necessary for a one-man beef farm (30-50 cows) is much higher than for dairy (15-20 cows). Perhaps best prospects for expansion in livestock products lie in powdered milk (for reconstitution) for the Newfoundland market and beef oriented toward the Maritime and Newfoundland markets. In this connection it would seem advisable to institute research designed to determine the best rotation and cropping methods adapted to beef and/or dairy production on each of the major soil types in the Atlantic Provinces.

Some real opportunities exist for the improvement of forage output not only in quantity but in quality through extended use of grass silage, heavier fertilization and liming, more frequent reseeding and further experimentation with better species particularly Alfalfa, Orchard and Brome grass. Ladino clover may be grown in areas such as the western part of Nova Scotia. Without some guidance in fitting this to the needs of the farm and in utilization through livestock little can be expected by way of improved production since there tends to be a surplus of roughage (low quality) under present forage production methods. Part of this is the result of a failure to adjust to the loss of the hay market for horses in liveries, mines and the woods.

Prospects for increased use of sheep on farms are conditioned by the fact that even though other alternatives may have no higher return than do sheep their social status is low. In those areas where sheep might be expected to utilize rough pasture, forest cover and brush rapidly cover the land and fencing costs are high. In other areas some land of this type is being utilized for blueberry production. The chief current difficulties with sheep are the small size of flock, poor management, sheep parasites and the lack of definite breeding programs. The sheep enterprise is generally neglected. This is partly the result of the insignificant size of flock. This again is a special problem in the Maritimes since a reasonable size of flock and the newer and better cross breeding methods require much larger acreages and lower labor inputs than do other alternatives. The reported complementary effect between sheep and beef in pasture utilization should be further investigated.

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Figure 5 – CROP VARIETY ZONATION GUIDE FOR THE ATLANTIC PROVINCES

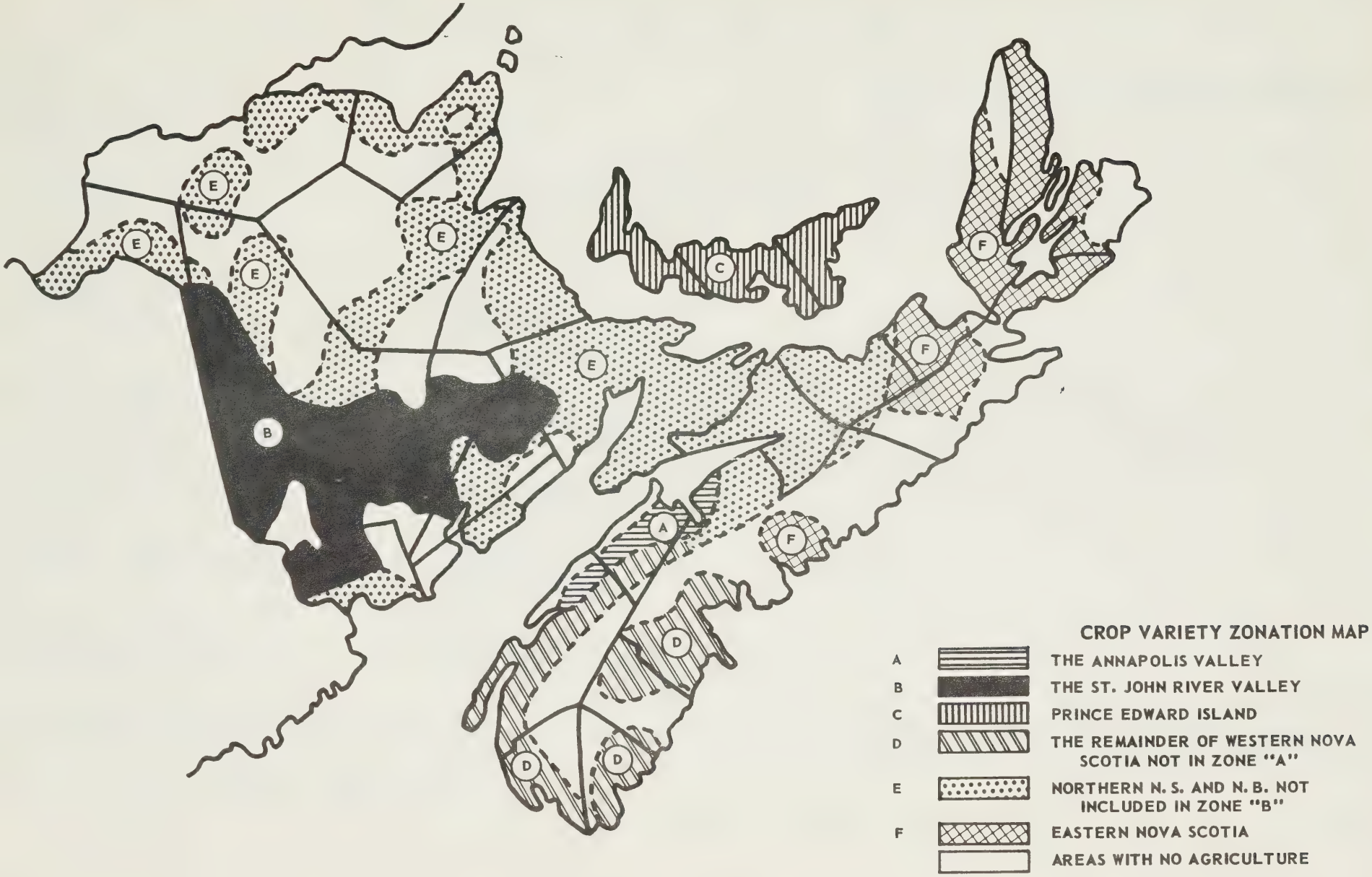

Table 5 - CROP VARIETY GUIDE FOR THE ATLANTIC PROVINCES 1/

SMALL FRUIT

KIND OF FRUIT	VARIETIES	Recommended Zones for Commercial Production						
		A	B	C	D	E	F	G
Strawberries, Early	Premier, Senator Dunlap Valentine	X	X	X	X	X	X	X
Midseason	(Catskill	X	X	X	X	X	X	X
	(Sparkle	X	X	X	X			
	Louise	X		X	X			
Raspberries	Newburgh, Viking	X			X			
	Trent, Viking, Madawaska		X					
	Madawaska, Trent			X		X	X	X
Currants, Red (in areas without heavy fog)	Cascade, Red Lake	X	X	X	X	X	X	X
Black	Climax	X	X	X	X	X	X	X
Gooseberries	Clark Poorman	X	X	X	X	X	X	X
Grapes	Fredonia, Kendaia	X	X					
Highbush Blueberries, early	Rancocas	X						
midseason	Jersey, Stanley	X						
late	Burlington	X						
Cranberries, early	Early Black							
	Howes (except northern D.C.)	X	X	X	X	X	X	X

1/ SOURCE: Crop Variety Guide for the Atlantic Provinces, Experimental Farms Service, Canada Department of Agriculture

G - Crop variety guide for Newfoundland.

Table 6 - CROP VARIETY GUIDE FOR THE ATLANTIC PROVINCES

VEGETABLES

KIND OF VEGETABLE	VARIETIES	Recommended Zones for Commercial Production						
		A	B	C	D	E	F	G
Asparagus	Mary Washington, Viking	X	X	X	X	X	X	X
Beans, Green	Contender, Topcrop, Wade	X	X	X	X	X	X	X
Wax	(Brittle Wax, Cherokeo, Kingborn Wax, (Pacer, Pencil Pod Black Wax	X	X	X	X	X	X	X
Beets	Detroit Dark Red, Crosby's Egyptian	X	X	X	X	X	X	X
Broccoli	Italian Green Sprouting, Waltham 29	X	X	X	X	X	X	X
Brussel Sprouts	Catskill, Long Island Improved	X	X	X	X	X	X	X
Cabbage, Green Early	Copenhagen Market, Golden Acre, Viking Small Early	X	X	X	X	X	X	X
Midseason	Bonanza, Glory of Enkhuizen	X	X	X	X	X	X	X
Late	Danish Ballhead, Penn State Ballhead	X	X	X	X	X	X	X
Red	Mammoth Red Rock	X	X	X	X	X	X	X
Savoy	Chieftan Savoy	X	X	X	X	X	X	X
Carrots	Amsterdam, Chantenay, Long Imperator, Morse's Bunching Nantes	X	X	X	X	X	X	X
Cauliflower, Early	Snowball A, Super Snowball	X	X	X	X	X	X	X
Main Crop	Perfected Snowball, Snowdrift	X	X	X	X	X	X	X
Celery, Green	Utah, No. 15	X	X	X	X	X	X	X
Yellow	Cornell, No. 19	X	X	X	X	X	X	X
Chard	Fordhook Giant	X	X	X	X	X	X	X
Citron	Colorado Preserving	X	X	X	X	X	X	X
Chinese Cabbage	Chihli	X	X	X	X	X	X	X
Corn, Extra early	Goldmino, Improved Spancross, Seneca 60	X	X	X	X	X	X	X
Early	Dorinny, Golden Rocket, North Star, Narcross, Sugar Prince	X	X	X	X	X	X	X
Midseason	Carmelcross, Gold Rush, Seneca Golden	X	X	X	X	X		
Late	Calument, Seneca Arrow, Seneca Chief	X	X					

(continued)

Table 6 (continued) CROP VARIETY GUIDE FOR THE ATLANTIC PROVINCES
VEGETABLES

KIND OF VEGETABLE	VARIETIES	Recommended Zones for Commercial Production A	B	C	D	E	F	G
Cucumber, Slicing	Durpee's Hybrid, Marketer, Niagara	X	X	X	X	X	X	X
Pickling	Maine No. 2, National, W.S.R. 10	X	X	X	X	X	X	X
Eggplant	New Hampshire Hybrid	X	X					
Kale	Dwarf Green Curled	X	X	X	X	X	X	X
Koblrabi	White Vienna	X	X	X	X	X	X	X
Lettuce, open or leaf	Grand Rapids, Salad Bowl, Slobalt	X	X	X	X	X	X	X
Crisp head	Pennlocke, Premier Great Lakes	X	X	X	X	X	X	X
butter head	Big Boston	X	X	X	X	X	X	X
Muskmelon	Farnorth, Golden Champlain	X	X	X				
Onions, outdoor seeded yellow	Asgrow Y 41, Early Yellow Golde, Kenearly	X		X	X			
red	Red Wethersfield	X						
white	White Portugal, White Barletta	X	X	X	X			
transplanted yellow	Sweet Spanish, Asgrow Y 41, Autumn Spice	X	X	X	X	X	X	X
white	White sweet spanish	X	X	X	X	X	X	X
sets		X	X	X	X	X	X	X
Parsley	Moss curled	X	X	X	X	X	X	X
Parsnip	All American, Hollow Crown	X	X	X	X	X	X	X
Peas, Tall	Kootenay, Tall Telephone							
Dwarf	Director, Larton's Progress, Little Marvel Perfected Freezer	X	X	X	X	X	X	X
	Perfection, Pride	X	X	X	X	X	X	X
Canning	Pennwonder, Vinedale	X	X	X				
Peppers, Sweet Green	Long thick Red	X	X					
Hot Green	Irish Cobbler, Warba	X	X	X	X	X	X	X
Potatoes, early	Keswick	X	X	X	X	X	X	X
second early	Canso, Green Mountain, Katahdin, Kenneleo, Sebago	X	X	X	X	X	X	X
main crop	Small Sugar	X	X	X	X	X	X	X
Pumpkin	Cherry Belle, French Breakfast	X	X	X	X	X	X	X
Radish	Macdonald, Sunrise, Valentine	X	X	X	X	X	X	X
Rhubarb	Laurentian	X	X	X	X	X	X	X
Rutabaga	America, Bloomsdale, Long Standing	X	X	X	X	X	X	X
Spinach								

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Table 6 (continued) - CROP VARIETY GUIDE FOR THE ATLANTIC PROVINCES a/
VEGETABLES

KIND OF VEGETABLE	VARIETIES	Recommended Zones for Commercial Production						
		A	B	C	D	E	F	G
Squash, Summer	Early Yellow Prolific	X	X	X	X	X	X	X
Winter	(Buttercup, Butternut, Blue Hubbard Golden							
	(Hubbard, Green Hubbard							
Tomatoes -								
Determinate - Semi-dwarf	Bounty, Earl Chatham, Meteor	X	X	X	X	X	X	X
Indeterminate - early	Burpeana, Carleton, Quebec No.5							
mid-season	Earliest and Best, Stokesdale	X	X					
Turnip	Purple Top White Globe	X	X	X	X	X	X	X
Vegetable Marrow	Long White Bush	X	X	X	X	X	X	X
Watermelon	(Early Canada, New Hampshire Miget							
	(Sweet Sensation	X	X	X				

a/ Source: Crop Variety Guide for the Atlantic Provinces, Experimental Farms Service, Canada Department of Agriculture.

Table 7 - CROP VARIETY GUIDE FOR THE ATLANTIC PROVINCES a/
CEREAL AND FORAGE CROPS

KIND OF CEREAL CROP	VARIETIES	Recommended Zones for Commercial Production A	B	C	D	E	F	G
CEREAL CROPS								
Hulled oats, early	Ajax	X	X	X	X	X	X	
	Alaska, Cartier							X
Midseason	Abegweit, Bearer, Erban, Scotian	X	X	X	X	X	X	
	Erban							X
Barley	Charlottetown No. 80, Fort Montcalm	X	X	X	X	X	X	
	Charlottetown No. 80, Montcalm							X
Spring Wheat	Acadia	X	X	X	X	X	X	X
Winter Wheat (Nova Scotia)	Fairfield, Rideau	X			X	X		
Winter Rye	Crown, Imperial	X	X	X	X	X	X	
Field Peas	Arthur, Chancellor, Valley	X	X	X	X	X	X	X
Field Beans, white seeded	Burbank, Clipper	X	X	X	X	X	X	
colored	Kenearly yellow eye	X	X	X	X	X	X	
Buckwheat	Japanese, Welsford	X	X	X	X	X	X	X
STORAGE CROPS								
Corn for Silage (early	Warwick 150, Wisconsin (Canada) 240	X	X	X	X	X	X	X
(midseason	Warwick 210, Wisconsin (Canada) 276	X	X	X	X	X		
(late)	Wisconsin (Canada)355, Algonquin	X	X	X				
Sugar beets		X	X	X	X	X	X	X
Swedes	Acadia, Ditmars, Laurentian	X	X	X	X	X	X	X
	Wilhelmsburger	X	X	X	X	X	X	X
Mangels	Frontenac	X	X	X	X	X	X	X

a/ Source: Crop Variety Guide for the Atlantic Provinces, Experimental Farms Service, Canada Department of Agriculture

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G - Crop variety guide for Newfoundland.

Table 7 -- (continued) CROP VARIETY GUIDE FOR THE ATLANTIC PROVINCES
CEREAL AND FORAGE CROPS

KIND AND TYPE OF FORAGE CROPS	VARIETIES	Recommended Zones for Commercial Production						
		A	B	C	D	E	F	G
FORAGE CROPS								
GRASSES								
Timothy	Climax, [illegible], Milton	X	X	X	X	X	X	X
Orchard Grass	Hercules	X	X	X	X	X	X	
Brome		X	X	X	X	X	X	X
Meadow Fescue	Ensign, Mefon	X	X	X	X	X	X	X
Reed Canary Grass		X	X	X	X	X	X	X
Red Top		X	X	X	X	X	X	X
Kentucky Blue Grass		X	X	X	X	X	X	X
Canada Blue Grass		X	X	X	X	X	X	X
Brown Top (Colonial Bent)		X	X	X	X	X	X	X
LEGUMES								
Alfalfa	Grimm, Ladak, Narragansett, Rhizoma	X	X	X	X	X	X	X
Red Clover	Lasalle, Thomas	X	X	X	X	X	X	X
Alsike		X	X	X	X	X	X	X
Ladino Clover		X	X	X	X	X	X	X
White Clover		X	X	X	X	X	X	X
Sweet Clover		X	X	X	X	X	X	X
Birdsfoot trefoil		X	X	X	X	X	X	X

Table 8 - CROP VARIETY GUIDE FOR THE ATLANTIC PROVINCES a/
TREE FRUITS

KIND OF FRUIT	VARIETIES	Recommended Zones for Commercial Production						
		A	B	C	D	E	F	G
Apples, Early	Crimson Beauty, Melba	X	X	X	X	X		
Mid season	Cortland, Gravenstein, McIntosh, Sparton	X			X			
	Cortland, Hume, Lobo, McIntosh		X	X		X	X	X
Late	(Golden Delicious, Idared, Northern Spy	X			X			
	(Red Delicious, Rome Beauty, Northern Spy							
Cherries, Sweet	Bing Gold, Windsor, Van	X		X	X			
Sour	Montmorency	X	X	X	X	X	X	
Peaches - Early	Jerseyland, Marigold	X			X			
Mid. season	Dixigem, Golden, Jubilee, Redhaven	X			X			
Late	Vedette	X						
Plums, Early	California Blue, Early Laxten	X		X	X		X	X
	Grenville, Underwood		X			X		
Quinces	Bourgeat, Orange and Pineapple	X			X			
Pears, Early	Clapp Faraside, Bartlett, Russell, Bartlette	X		X	X			
Mid season	Bearschmitt, Ewart	X			X			
	Flemish Beauty, Menie, Phileson			X				
Late	Beuvie Bosc	X			X			
	Belle Lucrative			X				

a/ Source: Crop Variety Guide for the Atlantic Provinces, Experimental Farms Service, Canada Department of Agriculture.

G - Crop variety guide for Newfoundland.

Hogs have been very useful as a major source of supplementary income. Expansion has taken place especially in P.E.I. and this has been useful in increasing the size of business since a large part of the expansion has been based on increased purchased feeds. They have been helpful in replacing the loss of the fox industry.

Poultry have provided another source of additional income and are particularly helpful in expanding total output on a limited land base. The numbers of both poultry and hogs on each individual farm however are quite small and in poultry especially, the flock is well below a size which can compete with larger commercial flocks. Poultrymen in N.S. have led the way in improving methods and size of enterprise although a large part of the expansion there has been as a result of a few big operators.

It should be emphasized, however, that since the Maritimes are a deficit feed grain area, it would be unwise to advocate expansion of either hogs or poultry beyond those total numbers required for Maritime consumption since this area is not likely to compete in central Canadian markets with similar products produced there. This is because equipment costs tend to be higher in the Maritimes and a major portion of the feeds must be imported through central Canada while the price of the products would then be determined at the export outlet in central Canada.

In addition to the main crops of oats, barley, forage, potatoes and roots, it may be noted that a considerable market exists for certain fringe crops such as forage seeds.

Potatoes are well adapted to and are well established in the Maritimes. The chief problem is with maintenance and standardization of quality to a degree sufficient to compete in markets outside the Maritimes. A large proportion of the crop is sold for seed especially in P.E.I. where about half the Canadian crop of seed is produced. Turnips are exported to some extent but the bulk of the crop is used for cattle feed. The crop is now produced under a serious disadvantage of a high labor requirement as machinery has not been adapted to its production. Trouble in the potato industry may also be developing due to the high cost of specialized machinery for small acreages.

The chief limitations to the production of other vegetables are (1) markets and (2) the climate. Cool weather crops show much better prospects than those requiring hot summer weather (i.e., tomatoes, corn, etc.). There are also reasonably good prospects for expansion of the production of small fruits and vegetables for the in-season trade. Hilton 3/ has estimated that it would take some 1,050 acres to satisfy the requirements of N.B. in this regard. It should be borne in mind, however, that N.B. is perhaps in more of a deficit position than the other provinces. Such an expansion would probably add not more than 0.5 to 1.0 per cent to net farm income for the province but this development could be quite important to local areas. The position with respect to small fruits and vegetables for processing is not as clear. The limited information available indicates that considerable development

3/ Hilton, S.A. - Horticultural crops and possibilities in New Brunswick, Experimental Farms Service, 1954.

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might take place if major reliance is put on a few crops well adapted to competition in markets outside the Maritimes with a fringe of others which can compete in the local market and which would assist in evening out farm labor requirements and demands on processing capacity. Strawberries appear particularly inviting in this respect since the season is late. Picking is required after the school year is completed and in addition competing supplies of fresh berries on the New England market are past their peak. Other crops such as carrots (in season), peas, beans, cabbage (in season), asparagus, cucumbers, etc. should be given serious consideration. The success of further developments would depend to a large extent upon development and concentration of production about market and processing facilities. Because of the difficulty in developing high color on apples, increasing reliance upon processing varieties may be necessary. Of the remaining tree fruits pears and perhaps peaches have the best chance of competing in outside markets although more information is required. Some considerable and profitable expansion of production on managed blueberry barrens is taking place. The development of cranberries beyond local requirements is probably dependent upon a strong marketing organization which can compete with producers in Massachussets and the Lake Michigan area of the U.S. Blueberries especially appear to be well adapted to the area and the chief competition may be found in a growing blueberry industry in Newfoundland. There are certain pockets of bog which can be developed for the production of cranberries, celery, potatoes, onions, high bush blueberries, etc. Experiments show that very high yields can be obtained on certain of these soils.

Table 9 - Utilization of Dykeland in the Maritime Provinces, 1949-50.

	Annapolis River Marsh Area N.S.	Kentville-Windsor Marsh Area N. S.	Tantramar Marsh Area N.B.	Shepody River Marsh Area N.B.
Average acreage of dykeland per farm	13.7	30.7	66.5	43.4
Total No. of farms	153	70	195	98
Kind of Crop		--- per cent ---		
Broadleaf	9.4	2.4	17.2	22.2
Other Hay	50.5	57.8	44.7	21.5
Oats	1.9	14.3	2.9	.7
Mixed Grain	.5	2.6	--	--
Roots and vegetables	.2	1.5	--	--
Pasture	4.8	12.6	24.5	17.1
Out to sea	32.7	8.6	10.7	38.5
TOTAL	100.0	100.0	100.0	100.0

SOURCE: Utilization of Dykeland in the Maritime Provinces 1949-50 - G. Haase.

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In the Fredericton area up to about 9,000 acres of well drained alluvial soil might be available for small fruit and vegetable production. The soil lies mostly on the immediate banks of the St. John River between Fredericton and Gagetown. Part of this land is presently being used to produce these crops but production could be expanded by several thousand acres. Perhaps about half as much soil of other suitable types is available also in the same area.

The dyked marshlands in N.S. and N.B. present a special problem. Although excellent work has been accomplished in reclaiming these areas, (Table 9), little has been done with regard to the ultimate use to which such lands should be put. The chief problems lie in adequate drainage for a wider variety of crops and the unattached nature and extremely small size of many of the individual holdings. Many are held by absentee owners. A few of the better drained areas can be used for grain production in addition to hay and trials of a few vegetables have been made. Pasturing such lands is made difficult since cattle tramp and fill in the present type of drainage ditch and on many marshlands the small size of holdings and lack of fresh water make co-operative (or pooled) pasturing the only workable means of utilizing the lands in this way. Special efforts are required to amalgamate present holdings into contiguous blocks which might preferably be associated with nearby (or adjacent) farms on high ground. The areas at present when limed are especially adapted to hay production but neglected marshland deteriorates more rapidly in quality than in quantity of forage. Some extensive investigation into a program for effective production and utilization of feed is warranted. Beef appears to provide the most logical outlet.

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MARKETING ASPECTS OF MARITIME PROVINCES AGRICULTURE 4/

Maritime agriculture produces in general insufficient crops and livestock products for the needs of the people of the region. This statement applies when one considers the three long-time Maritime Provinces, and the more so if Newfoundland be included, as it is little developed agriculturally. However, this statement is mainly concerned with the three provinces for several reasons, one of which is that Newfoundland is not naturally a monopoly market for Maritime Producers but is and will continue to be shared with areas farther west. At the same time, deficits of production indicated for the three provinces will nearly always be emphasized when Newfoundland is added to the consideration.

To point up the nature and degree of deficit production of farm products in the Maritimes several methods can be used. Mention is made of:

1) Interprovincial rail freight movement and surplus-deficit indications therefrom.
2) Maritime production in relation to per capita consumption, the latter being accepted as the same for the eastern area as for Canada as a whole.
3) Maritime production related to National production, and the proportions derived being set against Maritime population as a proportion of national population.
4) Other evidence of inward and outward movement of farm products such as figures compiled in the Department's Markets Information Section.
5) Trade of Canada through Maritime ports for U.S. and other foreign movements.

The results of these methods are in essential agreement with each other. Reference here will be to items 1, 3 and 5 in particular, with some use of the other two sources or methods.

Net Rail Movements of Agricultural Products to the Atlantic Provinces

By any method, potatoes and apples, fresh and processed, are strongly surplus. Similarly grains, meats, some dairy products, and most items of fruits and vegetables are clearly deficit. Table 10 shows the railway freight record from 1951 to 1955 for the net agricultural movements to and from the Atlantic Provinces. Detail for each province is given in Appendix A. It should be noted that while meat animals are shown as a net export of Nova Scotia and Prince Edward Island, it indicates only that processing for the area is carried on partly outside.

Despite the general deficit condition of the Maritime region in agricultural production, problems which have from time to time come to national attention have tended to concern such surplus products as potatoes and apples. However, such policies as fertilizer and lime and feed freight subventions have been attacks on the general problem of under-production.

4/ Includes only Nova Scotia, New Brunswick and Prince Edward Island

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Table 10 - Railway Freight [a] - The Net Agricultural Movements To and From the Maritime Provinces, 1951-1955.

	1951		1952		1953		1954		1955	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
	------- thousand tons -------									
Agricultural Products										
Wheat	-	29	-	32	-	31	-	24	-	33
Corn	-	5	-	5	-	6	-	7	-	7
Oats	-	28	-	41	-	43	-	45	-	48
Barley	-	30	-	38	-	27	-	33	-	35
Other grain	-	5	-	5	-	6	-	2	-	4
Flour	-	96	-	99	-	97	-	105	-	89
Other Mill products	-	151	-	182	-	150	-	221	-	235
Hay and Straw	-	4	-	2	-	b/	-	2	-	2
Cotton	-	8	-	7	-	4	-	3	-	3
Apples	1	-	6	-	5	-	-	4	2	-
Other Fruit	-	29	-	32	-	35	-	33	-	32
Potatoes	395	-	337	-	368	-	372	-	367	-
Other vegetables	-	2	-	3	-	9	-	13	-	11
Other agr. prods.	-	27	-	29	-	26	-	28	-	29
Agr. Prod. Total		17		132		62		147		159
Animal Products										
Cattle, calves	6	-	1	-	1	-	1	-	1	-
Hogs	b/	-	-	b/	b/	-	-	b/	-	b/
Other live animals	-	1	-	b/	1	-	-	b/	-	b/
Dressed meat, poultry		12	-	20	-	26	-	28	-	19
Other packing-house products	-	29	-	29	-	24	-	24	-	41
Butter, cheese & eggs		2	-	3	-	3	-	3	-	2
Wool	-	b/	-	b/	-	b/	b/	-	b/	-
Hides	2	-	2	-	3	-	3	-	4	--
Other animal products	16	-	16	-	17	-	25	-	27	-
Animal Products Total		19		33		32		26		32
Canned Goods		74		82		73		87		85
Net Agricultural Freight Movement		110		247		167		260		276

a/ Via rail and water by Canadian Railways.
b/ Less than 500 tons but more than 50 tons.

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Maritime Farm Production in Relation to Maritime Requirements

The following table 11 is an exposition of relationships referred to in method 3 above. It is a very general indicator, most accurate when there is no international trade in the commodity and when it is logical to expect Maritimers to consume the same amount per person as Canadians in general. The leading items of human food farm products have been grouped into those which are 1) surplus; 2) almost in equilibrium; 3) deficit and 4) markedly deficit. Many products apparently not suitable for Maritime agriculture are omitted. The method is to compare the Maritime proportion of total Canadian production with the proportion of Maritime population -- about 9 per cent -- in Canada's total. Differentiation amongst the three provinces is not here sought.

We note that, besides potatoes and apples, blueberries are produced in abundance. The latter fruit is not wholly a farm product, but much cultural care appears to be given to many barrens -- which are usually privately owned land -- today.

Eggs and the minor products of strawberries, wool, and ice cream tend to be produced in proportion to population, which may mean net out-shipments one year, net in-shipments another. However, wool tends to move out for processing. Ice cream tends not to be shipped long distances. And strawberries may move in during June and out during July.

The deficit products include total milk and butter. Cheese, honey, concentrated milk, poultry meat and meat animals are markedly deficit. In the latter case, figures of animal marketings with the exception of sheep and lambs show percentages which are much less than half the necessary supply judged by population proportion. However, because livestock marketing statistics are not as significant in Maritime meat self-supply as elsewhere, census figures have been compiled, combining farm slaughter for home use and for sale and also live sale for slaughter. On this basis (considering numbers of animals only) cattle, calves and hogs were in 1950 half or more supplied in the region whereas sheep and lambs fully satisfied the demand.

Two of the three Maritime Provinces are deficit areas in respect of red meat production and consumption. Prince Edward Island produces double its needs (without taking into account each kind of meat separately). New Brunswick is 47 per cent self sufficient and Nova Scotia only 37 per cent.

Estimated from the 1951 Census figures, production of red carcass meat equivalent by provinces was: Prince Edward Island, 28 million pounds; New Brunswick, 32 million pounds; Nova Scotia, 31 million pounds. The predominant livestock areas of the mainland provinces were the counties around the eastern Bay of Fundy. Kings and Westmorland in New Brunswick produced 10 million pounds; Kings, Hants, Colchester and Cumberland in Nova Scotia produced 14 million pounds. These six counties and Prince Edward Island accounted for almost 60 per cent of local livestock supply.

Of livestock disposed of in 1950, about seven per cent was home used; nine per cent moved to Quebec plants for slaughter; 48 per cent went to in-

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Table 11 - Maritime Farm Production in Relation to Total Farm Production in Canada.

	1952	1953	1954	1955	1956
	Per Cent of National Total				
Population	8.9	8.8	8.7	8.6	8.4
Maritime Crops and Products 1/					
(a) Surplus					
Potatoes	39	41	44	46	41
Apples - total	16	12	17	19	16
Processed	30	20	30	34	28 3/
Blueberries 2/	34	31	35	27	45
(b) Almost in equilibrium					
Wool	9	10	10	10	10
Strawberries	9	8	8	11	21 4/
Eggs	8	8	8	9	8
Ice Cream	9	8	8	8	7
(c) Deficit					
Total milk	6	7	7	7	7
Butter	7	7	7	7	7
(d) Markedly deficit					
Poultry Meat	5	5	6	5	5
Cheddar Cheese	2	2	2	2	2
Honey	1	1	2	1	2
Concentrated Milk	-	-	-	-	-
Maritime Livestock marketins -					
i - sheep and lambs	8	8	8	7	7
ii - hogs	3	3	3	2	2
iii - cattle	2	2	2	2	2
iv - calves	3	4	3	3	3

1/ Considered as very surplus if over 10 per cent of national total; equilibrium 8-10 per cent; deficit 8 per cent; markedly deficit under 7 per cent.
2/ Shows only a per cent of the reported quantity, from which Ontario is excluded.
3/ Preliminary. 4/ In 1956, 80 per cent of the B.C. strawberry crop was destroyed.

spected slaughter in New Brunswick and Prince Edward Island; and the rest, some 36 per cent, was either slaughtered for sale or sold for non-federally inspected slaughter in the Maritimes. It might be noted that inspected slaughter disposal for Nova Scotia was only 26 per cent as against about 75 per cent for the other two provinces.

Dairy products when considered together, are deficit as a group, perhaps three-quarters self-supplied. As might be expected, fluid milk and ice cream get high priority in regional production; butter gets attention almost to a sufficient extent (with, however, far more dairy butter produced than in other parts of Canada); and cheese and concentrated milk production are little developed in relation to regional demand. Climatically and within limits economically, this dairy products gap is susceptible of being worked on.

If farms were developed for greater milk production, they might also be developed for greater meat animal production as pasture and forage availability would in each case have to be stepped up. But in connection with meat animal marketing, price relationships provide some problems.

In Table 11, most fruits and vegetables have not been shown. Grown in Nova Scotia to some extent besides apples, strawberries and blueberries are pears, plums, cranberries, raspberries, and traces of peaches and currants. Culturally speaking they can each be developed, but in some cases earlier varieties, presumably lower yielding than in Ontario, might have to be grown.

The list of currently grown vegetables is also limited, to judge by those for which statistics are compiled. The commoner vegetable crops are produced in the case of green and wax beans to the extent of about half the needs, cabbage and carrots about sufficient for requirements.

Based on out-of-province supplies in carloads to the Saint John market, Hilton 3/ estimates that New Brunswick growers might devote 175 more acres to fruits and 874 more acres to vegetables than they now do. In each case products have been selected which are suitable to New Brunswick conditions, and he reports suitable land available. Since a few of the cars arriving at Saint John which he used for his estimates were from Nova Scotia and Prince Edward Island, we would curtail his acreage estimates somewhat in considering the Maritime region.

3/ Hilton, S.A., "Horticultural Crops and Possibilities in New Brunswick", Experimental Farms Service. 1954. (ibid).

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Gray in his Halifax market study of fruit and vegetables [5], showed that Nova Scotia supplied most of such crops as beans, cauliflower, cucumbers, peas, pumpkins and squash, radishes, rhubarb, spinach, and turnips. At certain seasons "imports" of beets, cabbage, carrots, celery, lettuce, onions, parsnips, and tomatoes were prevalent. Nova Scotia in the Annapolis Valley and elsewhere may be already more developed in vegetable production than New Brunswick. Fruits other than apples, blueberries, plums, and strawberries, were predominantly shipped to Halifax from outside the province. Some local showing of cranberries and pears was evident. At both Fredericton and Kentville Experimental Farms horticultural projects are prominent in the programs.

Price Relationships of Maritime Produce

With the general deficit situation of Maritime Farm production in relation to consumption in the region, one would expect Maritime prices for given products to rule higher than in Ontario and Quebec. When this is not the case it is difficult to urge Maritime farmers to strive to fill the gap. There are many price comparisons that do agree with this supposition and from time to time others which do not. Some of these price comparisons, covering a limited period of time, are as follows:

Cattle prices [6] - The prices of comparable grades of cattle on a live weight basis were in general lower in the Maritime Provinces (Moncton) than in Montreal during the past year except, in the case of choice, good and medium heifers (Table 12). The effect of the lower value of by products in the Maritimes accounts for a portion of the decrease in the value per hundredweight for cattle. Higher costs due to small scale operations may also justify, in part, the wider spread in Maritime prices but it is also likely that a lack of effective price competition in purchasing Maritime meat animals has resulted in a lower price and income to Maritime farmers and a larger deficit in the local meat supply than would otherwise exist.

5/ Gray, H.M., "The Marketing of Fruits and Vegetables in the Halifax Trading Area, 1949-50". Economics Division, Canada Department of Agriculture, in co-operation with Nova Scotia Department of Agriculture and Marketing. 1951.

6/ Livestock and Meat Trade report, weekly publication and the weekly Livestock Letter, Maritime Co-operative Services Ltd.

Table 12 - Cattle Prices at Moncton and Montreal, live weight basis[1/]
Second week of month, August 1956 - May 1957.

	August 1956		November 1956		February 1957		May 1957	
	Moncton	Montreal	Moncton	Montreal	Moncton	Montreal	Moncton	Montreal
	dollars per hundred weight							
STEERS								
Choice	20.65	22.35	19.47	20.75	19.47	19.15	19.76	21.00
Good	19.95	20.65	18.00	18.50	18.24	18.90	18.53	20.50
Medium	16.91-18.70	17.00-19.00	12.10-15.40	15.00-19.00	12.51-15.95	16.50-18.75	15.81-17.33	17.50-20.50
Common	10.07-13.78	13.00-14.00	7.95-8.74	10.00-14.50	9.28-10.34	11.50-15.00	11.00-12.06	14.00-17.00
HEIFERS								
Choice	19.72	-	18.56	-	18.56	-	18.85	17.00
Good	19.04	17.00	17.36	-	17.36	16.00	17.64	15.50
Medium	15.53-17.82	13.65-15.00	10.80-14.04	12.00-13.00	13.23-15.12	13.00-14.00	14.98-17.01	15.00-16.00
Common	9.88-13.00	10.00-13.00	7.80-8.06	7.50-10.00	8.58-9.62	9.00-10.00	10.79-11.83	11.00-13.00
COWS								
Good	11.61	13.35	9.99	10.50	11.20	11.75	13.09	14.60
Medium	10.60	11.95	8.88	8.95	9.01	10.25	11.13	12.50
Canners	8.45	9.10	7.54	6.75	7.93	7.80	9.49	9.35
BULLS	9.36-10.26	10.00-13.50	8.19-8.78	9.00-11.00	8.19-8.51	11.00-13.50	9.49-9.99	11.00-15.00

1/ estimated percentage dress-out was as follows: steers - choice 59%, good - 57%, medium - 55%, common - 53%.
Heifers - choice 58%, good 56%, medium 54%, common 52%,
Cows - good 54%, medium 53%, canners 52%.
Bulls - 53%.

For Nova Scotia farmers, the returns for cattle may improve with the construction of an abattoir at Halifax and the subsequent reduction in rail freight. Livestock processed at Moncton pays rail freight rates varying from 22 cents per 100 pounds for 80 miles to 61 cents for the 430 miles from Yarmouth. A shipment from Nova Scotia points to a plant at Halifax would save over Moncton about 25 cents per 100 pounds on the Dominion Atlantic Railway and 3-7 cents in central and eastern Nova Scotia. Meat distributing freight rates would likewise be lower from a Halifax plant to Nova Scotia points than from Moncton, with the biggest gains again in the west. The Halifax market, which would be supplied on a local delivery basis if an abattoir was built had 160,000 consumers in 1956.

Dairy Products.- The annual average of prices paid to farmers for dairy products in 1954 and 1955 7/ reflect, in general, higher prices in New Brunswick and Nova Scotia than in Ontario, but lower prices in Prince Edward Island. Intra-Maritime movements show dairy and other animal products going to New Brunswick and Nova Scotia from Prince Edward Island. Just how closely these dairy price differentials reflect freight costs from Ontario to the Maritimes will have to await further scrutiny.

Generally, butter prices 8/ are higher in Maritime centers than at Montreal while cheese prices are lower.

Eggs.- Wholesale egg prices 8/at Montreal are generally lower than in the Maritimes.

Potatoes.- Prince Edward Island potatoes 9/ in general, command a premium price in all markets where they are sold, with the exception of the Halifax market where Nova Scotia and Prince Edward Island potatoes are priced equally. The 1955-56 seasonal wholesale average for 100 pounds of No. 1 potatoes sold outside the Maritimes but in competition with Maritime potatoes was as follows: Quebec city - P.E.I. $3.08, N.B. 2.73, Que $2.21, Montreal - P.E.I. $3.16, N.B. $2.86, Que. $2.30 Toronto - P.E.I. $3.40, N.B. $3.05, Ont. $2.02

Apples.- The average farm value of apples 9/ per bushel was lowest in Nova Scotia but in 1954 and 1955 was higher in New Brunswick than anywhere in Canada.

Strawberries.- The strawberry price relationship 9/ shows Nova Scotia with the highest prices for the Maritimes; in 1955 being four cents p er quart higher than in Ontario.

7/ Dominion Bureau of Statistics, Quarterly Bulletin, 1956 p.60-1.
8/ Dominion Bureau of Statistics, Quarterly Bulletin, 1956 p.151,219.
9/ Crop and Seasonal Price summaries, Canada Department of Agriculture, Vol. 9 Part I p.25; Part II p.4 and 37.

For such products as fruits and vegetables which come predominantly from Ontario and the United States, the Maritime producer can get premium prices on the home market.

The Fruit and Vegetable Processing Industry 10/

Although canning in the Maritimes started for blueberries, apples soon became the main raw product and remain so today. A very high proportion of the output of the processing industry is in the Annapolis Valley of Nova Scotia. Much of the processing of products other than apples is done to extend the season of plants established for apples.

In vegetables, the dominance of Nova Scotia extends to canned beans, green, wax, and baked, and to canned peas. The modest output of several other products and some beans comes from two New Brunswick plants.

Strawberries and blueberries are the crops processed in Prince Edward Island, more as frozen product than as canned. The freezing of berries and a few vegetables is growing in the three provinces.

Processed apple products of the Maritimes are markedly surplus to the area's needs. Maritime labels appear on processed apples sold in Central Canada. Blueberries and strawberries are also processed to fill or more than fill Maritime needs. The external market for apple and blueberry products includes New England as well as Central Canada. Frozen blueberry exports to the United States are somewhere in the one million pound range annually (larger quantities go fresh). Maritime apple product export to New England, at about $300,000 in 1955 was second in importance to the flow to Central Canada and about three quarters of Canada's apple export to the United States. Fresh Maritime apples also move to United States processing plants. Most of the fruit and vegetable products not mentioned are distinctly deficit to the area's requirements, with green and wax beans coming nearest to closing the gap.

A problem that processors in the Maritimes must now face in respect of apple products, and would have to face for other products which became surplus, is that for that part of their output shipped westward to Quebec and Ontario they would already have paid freight on the empty cans when they moved eastward from Montreal. However, as regards sugar and salt, Maritime factories produce these, so double freight would presumably be avoided.

The potential for further developing processing in the Maritimes may well rest heavily in the Annapolis Valley, where the climate favors various horticultural crops besides apples. Furthermore, Nova Scotia processing apples are becoming scarce. However, when quick-freezing is considered, all three provinces are already showing signs of development.

10/ A Seminar paper "The Maritime Fruit and Vegetable Processing Industry" by G.W. Hope, Food Technologist, Dominion Experimental Farm, Kentville as well as talks with him and his colleagues at Kentville and Fredericton assisted in preparing this section.

If a community can support a cold storage plant the size of an ice cream plant it can probably freeze fruits and vegetables in consumer packages or otherwise. The plant should be in a producing area.

In respect of local processors competing with nationally advertised brands, there is always the possibility of national advertisers establishing or taking over plants in distant areas by reason of increased freight rates or otherwise.

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APPENDIX "A"

Appendix Table 1.- Railway Freight - The Net Agricultural Movements to and from New Brunswick, 1951-1955

	1951		1952		1953		1954		1955	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
	- thousand tons -									
AGRICULTURAL PRODUCTS										
Wheat	-	14	-	15	-	14	-	9	-	15
Corn	-	3	-	3	-	4	-	4	-	5
Oats	-	10	-	18	-	16	-	18	-	19
Barley	-	15	-	18	-	12	-	18	-	18
Other grain	-	2	-	2	-	3	-	2	-	2
Flour	-	34	-	36	-	36	-	40	-	34
Other mill products	-	60	-	72	-	63	-	56	-	54
Hay and straw	8	-	9	-	9	-	9	-	10	-
Cotton	-	3	-	3	-	2	-	-	-	a/
Apples	-	2	-	1	-	1	-	2	-	1
Other fruit	-	12	-	13	-	14	-	12	-	10
Potatoes	268	-	218	-	210	-	215	-	217	-
Other Vegs.	-	7	-	9	-	10	-	10	-	10
Other Agric. Products	-	13	-	13	-	10	-	15	-	15
Agr. Products Total	101		23		34		37		43	
ANIMAL PRODUCTS										
Cattle, calves	-	1	-	3	-	3	-	3	-	3
Hogs	-	5	-	8	-	4	-	5	-	5
Other live animals	-	1	-	a/	-	a/	-	a/	-	1
Dressed meat, poultry	3	-	3	-	-	1	-	a/	-	3
Other packing house products	-	8	-	8	-	8	-	8	-	10
Butter, cheese & eggs	-	a/	-	1	-	1	-	2	-	1
Wool	-	a/	-	a/	-	a/	a/	-	-	a/
Hides	1	-	1	-	1	-	1	-	1	-
Other animal products	2	-	2		3		3	-	4	-
Animal products Total		11		14		14		15		17
Canned goods		29		33		27		28		28
Net N.B. Agr. freight movements	61			24		7		6		2

a/ Less than 500 tons but more than 50 tons.

Appendix Table 2.- Railway Freight - The Net Agricultural Movements to and From Nova Scotia, 1951-1955

	1951		1952		1953		1954		1955	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
	- thousand tons -									
AGRICULTURAL PRODUCTS										
Wheat	-	11	-	13	-	13	-	13	-	14
Corn	-	2	-	-	-	2	-	2	-	2
Oats	-	16	-	17	-	20	-	24	-	22
Barley	-	10	-	14	-	10	-	12	-	11
Other grain	-	2	-	2	-	3	-	b/	-	1
Flour	-	51	-	49	-	49	-	55	-	46
Other mill products	-	83	-	99	-	79	-	135	-	144
Hay and straw	-	5	-	2	-	1	-	b/	-	2
Cotton	-	5	-	4	-	2	-	3	-	2
Apples	5	-	10	-	8	-	1	-	7	-
Other fruit	-	15	-	16	-	17	-	5	-	17
Potatoes	-	20	-	26	-	21	-	24	-	24
Other vegs.	-	9	-	10	-	12	-	11	-	10
Other agric. products		11	-	14	-	14	-	12	-	12
Agr. products total		234		258		237		308		303
ANIMAL PRODUCTS										
Cattle, calves	4	-	2	-	3	-	3	-	3	-
Hogs	2		3	-	2	-	1	-	1	-
Other live animals	a/		a/	-	a/	-	a/	-	a/	-
Dressed meat, poultry	-	12	-	18	-	19	-	21	-	11
Other packing house products		18	-	17	-	14	-	12	-	25
Butter, cheese and eggs	-	2	-	2	-	2	-	2	-	2
Wool	-	a/	-	a/	-	a/	-	-	a/	
Hides	1	-	1	-	1	-	1	-	2	-
Other animal products	12	-	12	-	12	-	18	-	18	-
Animal products Total		13		18		17		11		14
Canned goods		34		37		34		48		44
Net N.S. Agri. Freight movement		281		313		288		367		361

a/ Less than 500 tons but more than 50 tons.

Appendix Table 4.- Railway Freight[a/] - The Net Agricultural Movement to and from Newfoundland 1951-1955

	1951		1952		1953		1954		1955	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
	- thousand tons -									
AGRICULTURAL PRODUCTS										
Wheat	-	-	-	-	-	-	-	-	-	-
Corn	-	-	-	-	-	-	-	-	-	-
Oats	-	3	-	3	-	3	-	3	-	3
Barley	-	-	-	-	-	-	-	-	-	-
Other grain	-	b/	b/	-	-	b/	-	-	-	-
Flour	-	6	-	8	-	7	-	6	-	6
Other mill products	-	1	-	2	-	1	-	7	-	8
Hay and straw	-	8	-	9	-	9	-	10	-	10
Cotton	-	-	-	-	-	-	-	-	-	-
Apples	-	2	-	2	-	2	-	2	-	3
Other fruit	-	1	-	2	-	3	-	3	-	4
Potatoes	-	7	-	8	-	11	-	13	-	18
Other fresh.veg.	-	3	-	3	-	5	-	5	-	8
Other agr. products	-	b/	-	b/	-	b/	-	b/	-	b/
Agr. Products Total		32		39		41		49		59
ANIMAL PRODUCTS										
Cattle, calves	-	1	-	1	-	2	-	2	-	2
Hogs	-	-	-	-	-	-	-	-	-	-
Other live animals	-	b/	-	-	-	-	-	b/	-	b/
Dressed meat, poultry	-	5	-	7	-	8	-	9	-	7
Other packing house products	-	2	-	3	-	3	-	3	-	7
Butter, cheese and eggs	-	b/	-	b/	-	b/	-	b/	-	b/
Wool	-	-	-	-	-	-	-	-	-	-
Hides	-	-	b/	-	b/	-	-	-	-	b/
Animal products n.o.s.	1	-	1	-	1	-	3	-	-	-
Animal Products Total	-	8		11		12		12		10
Canned goods	-	7	-	9	-	9	-	8	-	10
Net Newfoundland Agr. Freight Movement		47		59		62		69		79

a/ Via rail and water by Canadian railways.
b/ Less than 500 tons but more than 50 tons.

Appendix Table 3.- Railway Freight[a/] - The Net Agricultural Movement to and from Prince Edward Island, 1951-1955

	1951		1952		1953		1954		1955	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
	- thousand tons -									
GRICULTURAL PRODUCTS										
Wheat	-	4	-	4	-	4	-	2	-	4
Corn	-	b/	-	b/	-	b/	-	b/	-	b/
Oats	-	-	-	3	-	3	b/	-	-	3
Barley	-	5	-	6	-	4	-	3	-	6
Other grain	-	-	-	b/	-	b/	-	b/	-	-
Flour	-	5	-	5	-	5	-	4	-	5
Other mill products	-	7	-	9	-	7	-	33	-	29
Hay and straw	1	-	b/	-	b/	-	b/	-	b/	-
Cotton	-	-	-	-	-	-	-	-	-	-
Apples	-	b/	-	b/	-	b/	-	b/	-	b/
Other fruit	-	1	-	1	-	1	-	3	-	1
Potatoes	154	-	153	-	190	-	194	-	192	-
Other vegs.	17		19	-	18	-	13	-	17	-
Other agr. products		2		2	-	1	-	1	-	1
gr.Products Total	148		142		183		173		161	
NIMAL PRODUCTS										
Cattle, calves	5	-	5	-	4	-	4	-	3	-
Hogs	3	-	4	-	3	-	4	-	3	-
Other live animals	b/	-	b/	-	b/	-	b/	-	b/	-
Dressed meat, poultry	3	-	2	-	1	-	3	-	1	-
Other packing house products	b/	-	-	-	b/	-	-	b/	-	-
Butter, cheese and eggs	1	-	1	-	1	-	1	-	1	-
Wool	-	-	-	-	-	-	-	-	-	-
Hides	b/	-	b/	-	b/	-	b/	-	1	-
Other animal products	b/	-	b/	-	b/	-	b/	-	1	-
nimal products Total	13		10		11		13		11	
anned goods		2		3		4		5		3
et P.E.I. Agr. reight Movement	159		149		190		181		169	

/ Via rail and water by Canadian railways.
/ Less than 500 tons but more than 50 tons.